

## **THEMATIC SESSION**

Archaeology and digital technologies -

Exchange of best practices, with particular reference to the European Convention on the Protection of the Archaeological Heritage (revised, Valletta, 1992)

- SLOVENIA -



## **CDCPP Thematic session on Archaeology and Digital Technologies**

## Case study: Danube's Archaeological eLandscapes project (Interreg DTP) – modern technologies for promotion of archaeological landscapes

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The fundament for the idea of the Danube's Archaeological eLandscapes (DAeL) project was the rich and culturally diverse archaeological heritage of the Danube River basin. It is a highly significant relic of millennia of development of our society and a carrier of important information about our past. The Interreg DTP DAeL project, funded by ERDF and IPA II, focuses on the enormous potential of archaeological heritage in all its various forms for the development of sustainable cultural tourism in the region.

However, archaeological heritage often faces a major challenge, namely, that it is not recognised or visible enough to be managed, included and used in a sustainable way for tourism. By 'visibility' we mean not only the mere physical presence of archaeological artefacts or reconstructions of sites, but also the visibility of archaeology to the wider public of the region. Here we seek help from new technologies, which serve us in several ways. On the one hand, we use non-invasive research methods (e.g. Airborne Laser Scanning - ALS, geophysical methods) to obtain information about archaeological landscapes in unprecedented detail, which in further steps allow us to reconstruct entire archaeological complexes or micro-regions. On the other hand, the new digital tools allow us not only to visualise archaeological knowledge in a completely new way, but also to communicate it in a timely and attractive way not only to the general public, but also to urban / regional / national planning policies. In particular, using the non-invasive research methods included in the DAeL project, the inclusion of known but also less known archaeological heritage is used to prepare long-term planning strategies.

By researching and presenting archaeological finds, sites and especially the lesser known landscapes that constitute the largest man-made archaeological artefacts, also with the help of the new digital technologies mentioned above, we seek not only to raise public awareness of the need to protect and study these fragile remains of the past in



accordance with the European Convention on the Protection of the Archaeological Heritage, i.e. the Valletta Charter, but also to enhance their long-term conservation.

Our efforts aim at making the archaeological heritage, especially the archaeological landscapes of the Danube region, more visible and recognisable regionally, nationally, internationally and supra-regionally. Through the dissemination of knowledge and the implementation of joint international digital and travelling exhibitions, games or digital/virtual presentations using 3D technology, etc., we aim to connect the sites in the region and make them more attractive for their inclusion in long-term regional planning and sustainable cultural tourism. We incorporate various types of digital technologies in our workflow and especially in the display, promotion or presentation of products. The use of the state-of-the-art virtual reality (VR) and augmented reality (AR) technologies is not limited to the digitalization of selected archaeological objects presented in innovative and didactic ways in exhibitions, games, etc. By using and presenting digital innovations applied in the broad interdisciplinary fields of archaeology and museology, the participating major museums of the Danube region, as they are visited by the mainstream of tourists, encourage visitors to experience the (archaeological) heritage in its original landscapes not only in their own/visiting country, but also in the countries of other partners. In this way we promote public access to these important elements of the archaeological heritage/archaeological landscape and not only to popular archaeological sites but also to those not highlighted in the guidebooks and in this way we also try to prevent mass tourism.

An important issue, we encountered in dealing with archaeological data and its visualisation is a lack of standards, which the DAeL project looked at from different angles. We were not walking on a completely unknown terrain, as the project grew from long-lasting international cooperation that has already successfully completed two strategies, one on Research and Heritage protection, and the other on the Heritage promotion and Touristic use of archaeological landscapes. Both were prepared in our earlier Iron Age Danube project.

Our next step in the frame of the DAeL project was to prepare a joint international strategy on Sustainable touristic value from digitization of archaeological heritage. Digital approaches to the promotion of archaeological landscapes in the Danube region, which approaches the topic from three perspectives, one archaeological, one technological and one social.

The main and major challenges of the sector were defined in the Strategy, resulting in two main units of the strategy. The first unit focuses on the working processes from archaeological discovery to virtual visualisation, and the second on the potential of archaeological heritage in the digital world. With the aim of supporting the further



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adaptation and development of new technologies for the archaeological sector, the strategy concludes with 12 recommendations for heritage stakeholders that are adopted for their implementation at the national level for each participating country.

In line with the idea of the Valletta Charter for international cooperation and joint actions in the field of archaeological resources management through the development and exchange of relevant scientific information, technologies and expertise, the partnership of the Danube's Archaeological eLandscapes project builds on a network of the most influential museums with archaeological collections in the region. In addition to museums at national, regional and city levels from the Czech Republic, Hungary, Slovenia, Croatia, Romania, Austria, Bulgaria and Serbia, research and cultural heritage protection institutions from Austria, Germany, Slovakia and Slovenia are also significantly involved in the joint development of the project's objectives and products. Several other APSs are also involved in the various tasks, ranging from technical development to tourism and policymaking. Our work and progress is constantly updated and confronted with the public experience at various public activities, such as international mobility actions and industry forums. Connecting with the scientific and wider public through digital channels is constantly used. Not only with the mentioned activities, but also through the monthly newsletters and the multilingual website, an important challenge of the long-term promotion and continuation of the work of the RegioStars2018 finalist Iron Age Danube project, the partnership promotes the new Iron Age Danube Route, certified by CoE in 2021. The aim of our contribution is also the creation of new transnational archaeological routes as tools for the preservation of this heritage.

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